

Mounting the Cisco NCS 2002 Brackets

This chapter explains how to install the NCS 2002 brackets

The sections are:

- NTP-L44 Mounting the Brackets in ANSI Configuration, on page 1
- NTP-L45 Mounting the Brackets in ETSI Configuration, on page 7

NTP-L44 Mounting the Brackets in ANSI Configuration

Purpose	This task installs the 19-inch mounting brackets to the NCS 2002 shelf for ANSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Perform these procedures as required:

- DLP-L35 Mounting the 19-inch Brackets on the NCS 2002 Shelf for ANSI Rack Configuration, on page 2
- DLP-L36 Mounting the 23-inch Brackets on the NCS 2002 Shelf for ANSI Rack Configuration, on page 3
- DLP-L37 Mounting the Bracket with Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ANSI Rack Configuration , on page 5

Stop. You have completed this procedure.

DLP-L35 Mounting the 19-inch Brackets on the NCS 2002 Shelf for ANSI Rack Configuration

Purpose	This task installs the 19-inch mounting brackets to the NCS 2002 shelf for ANSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Caution When mounting the NCS 2002 in a frame with a nonconductive coating (such as paint, lacquer, or enamel) either use the thread-forming screws provided with the NCS 2002 ship kit, or remove the coating from the threads to ensure electrical continuity.

Note The mounting brackets can be installed in the front or the middle position of the chassis.

Procedure

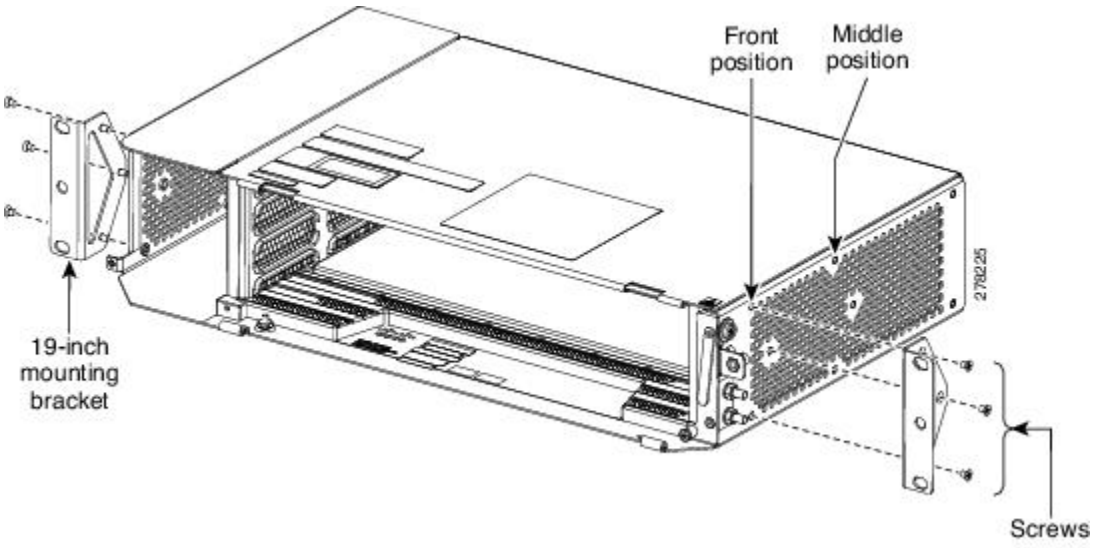
Step 1 Place the wider side of the 19-inch mounting bracket flush against the shelf (see the figure below). The narrow side of the mounting bracket should be towards the front of the shelf.

Step 2 Align the mounting bracket screw holes against the shelf screw holes.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 4 Repeat steps 1 through 3 for the mounting bracket on the opposite side.

Figure 1: Mounting the Brackets on the NCS 2002 shelf for a 19-inch (482.6-mm) ANSI Configuration

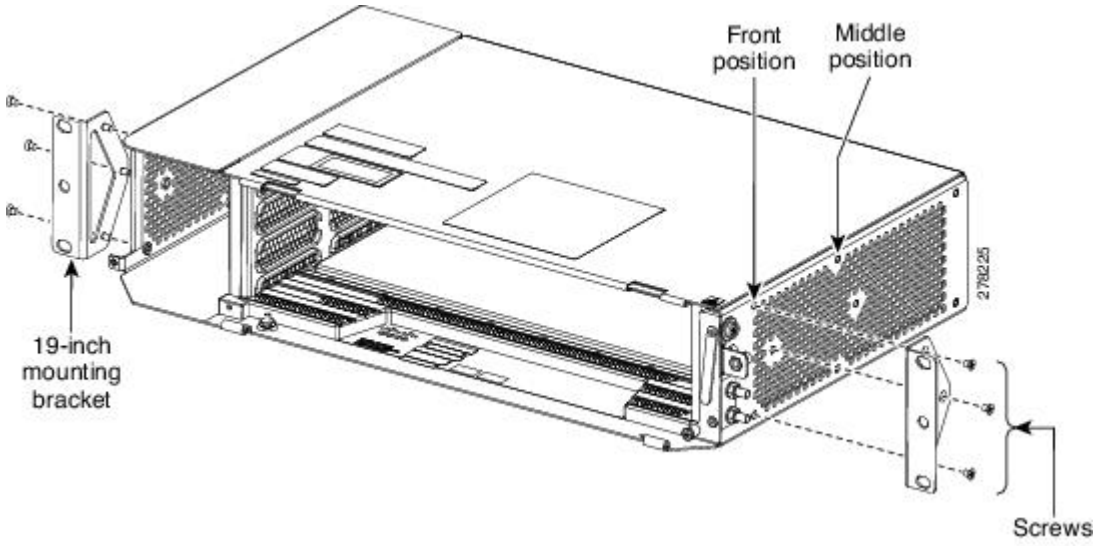


Step 5 Return to your originating procedure (NTP).

DLP-L36 Mounting the 23-inch Brackets on the NCS 2002 Shelf for ANSI Rack Configuration

Purpose	This task installs the 23-inch mounting brackets on the NCS 2002 shelf for ANSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.



Caution When mounting the NCS 2002 in a frame with a nonconductive coating (such as paint, lacquer, or enamel) either use the thread-forming screws provided with the NCS 2002 ship kit, or remove the coating from the threads to ensure electrical continuity.

Note The mounting brackets can be installed in the front or the middle position of the chassis.

Procedure

Step 1 Place the narrow side of the 23-inch mounting bracket flush against the shelf. The wider side of the mounting bracket should be towards the front of the shelf.

Step 2 Align the mounting bracket screw holes against the shelf screw holes.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 4 Repeat steps 1 through 3 for mounting the bracket on the opposite side.

Step 5 Return to your originating procedure (NTP).

DLP-L37 Mounting the Bracket with Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ANSI Rack Configuration

Purpose	This task mounts the 23-inch brackets with air deflectors (front-to-back) on the NCS 2002 shelf for ANSI rack configuration. **Note** In an ANSI rack, the air deflectors can be mounted only in the 23-inch rack configuration and in the front position of the chassis.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Procedure

Step 1 Place the right front air deflector flush against the right side of the chassis as shown in Diagram 1 of the following figure.

Step 2 Align the screw holes on the right front air deflector with the screw holes on right side of the chassis.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 2 of the following figure.

Step 4 Place the left back air deflector flush against the chassis as shown in Diagram 1 of the following figure.

Note
If the 100G-LC-C, 10x10G-LC, or CFP-LC cards are to be installed in the NCS 2002 shelf, do not mount the left back deflector (exhaust air deflector). Use the standard brackets directly to mount the NCS 2002 shelf.

Step 5 Align the screw holes on the left back air deflector with the screw holes on the chassis.

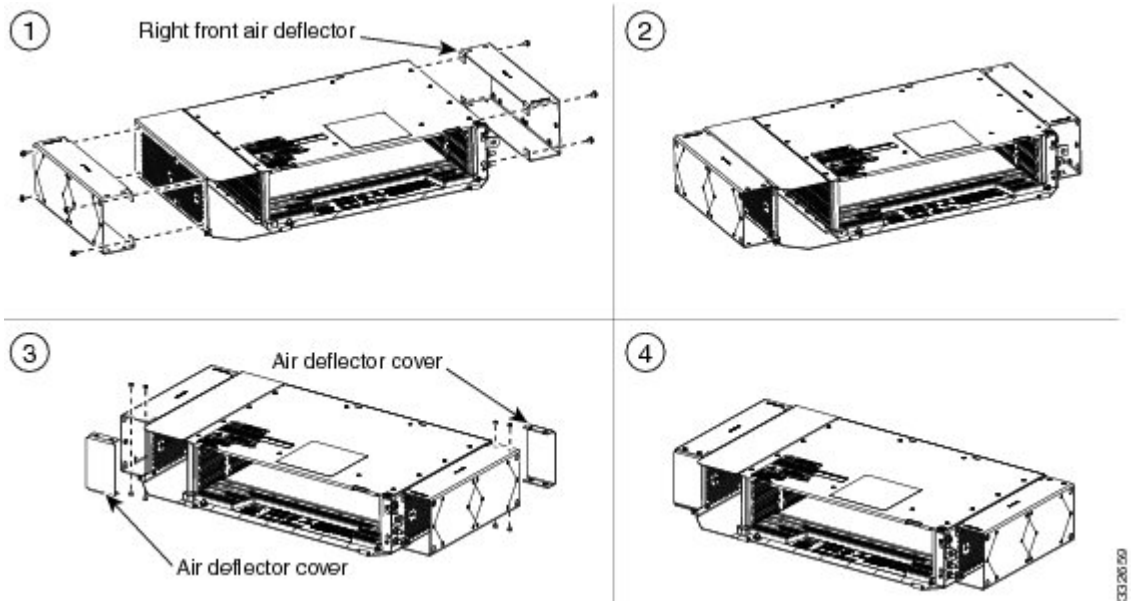
Step 6 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 2 of the following figure.

Step 7 Place the air deflector covers on the front and rear ends of the chassis as shown in Diagram 3 of the following figure.

Step 8 Align the screw holes on the air deflector covers with the screw holes on the chassis.

Step 9 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 4 of the following figure.

Figure 2: Mounting the Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ANSI Rack Configuration



Step 10 Place the 23-inch mounting bracket flush in the front position (see Diagram 1 of the following figure) or in the middle position (see Diagram 3 of the following figure) against the right side of the chassis.

Step 11 Align the screw holes on the 23-inch mounting bracket with the screw holes on the right side of the chassis.

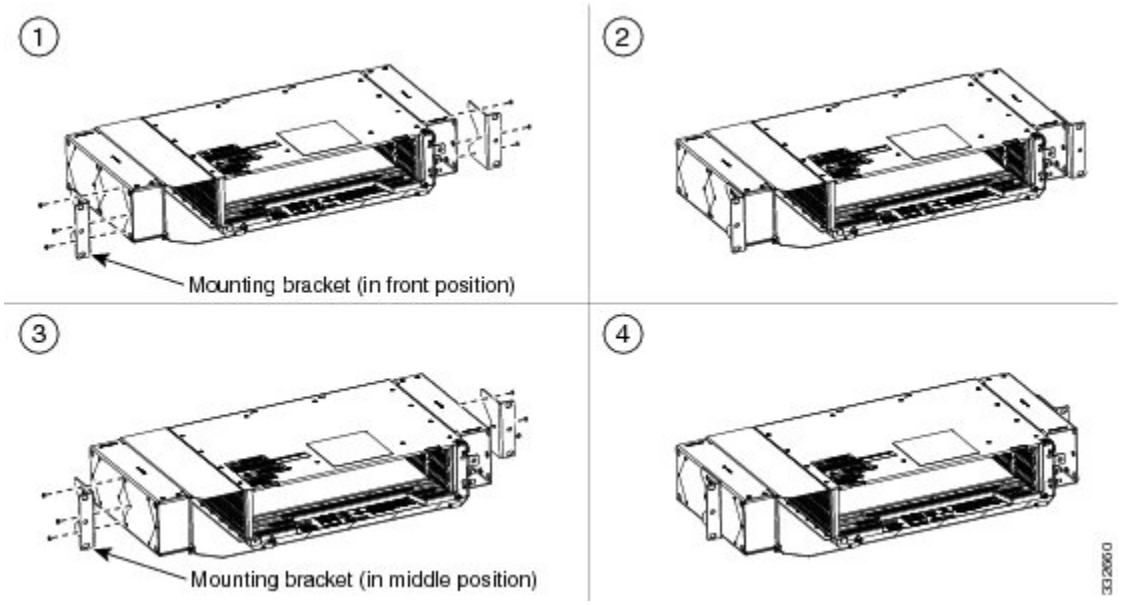
Step 12 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 13 Place the 23-inch mounting bracket flush in the front position (see Diagram 1 of the following figure) or in the middle position (see Diagram 3 of the following figure) against the left side of the chassis.

Step 14 Align the screw holes on the 23-inch mounting bracket with the screw holes on the left side of the chassis.

Step 15 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Figure 3: Mounting the Brackets on the NCS 2002 Shelf for ANSI Rack Configuration



Step 16 Return to your originating procedure (NTP).

NTP-L45 Mounting the Brackets in ETSI Configuration

Purpose	This task installs the 19-inch mounting brackets to the NCS 2002 shelf for ANSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Perform these procedures as required:

- DLP-L38 Mounting the Brackets on the NCS 2002 Shelf for ETSI Rack Configuration, on page 8
- DLP-L39 Mounting the Air Deflectors (Front-to-Front) on the NCS 2002 Shelf for ETSI Rack Configuration, on page 9
- DLP-L40 Mounting the Bracket with Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ETSI Rack Configuration, on page 11

Stop. You have completed this procedure.

DLP-L38 Mounting the Brackets on the NCS 2002 Shelf for ETSI Rack Configuration

Purpose	This task installs the mounting brackets on the NCS 2002 shelf for ETSI rack configuration. **Note** In an ETSI rack, the air deflectors can be mounted only in the front position of the chassis.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Caution When mounting the NCS 2002 in a frame with a nonconductive coating (such as paint, lacquer, or enamel) either use the thread-forming screws provided with the NCS 2002 ship kit, or remove the coating from the threads to ensure electrical continuity.

Procedure

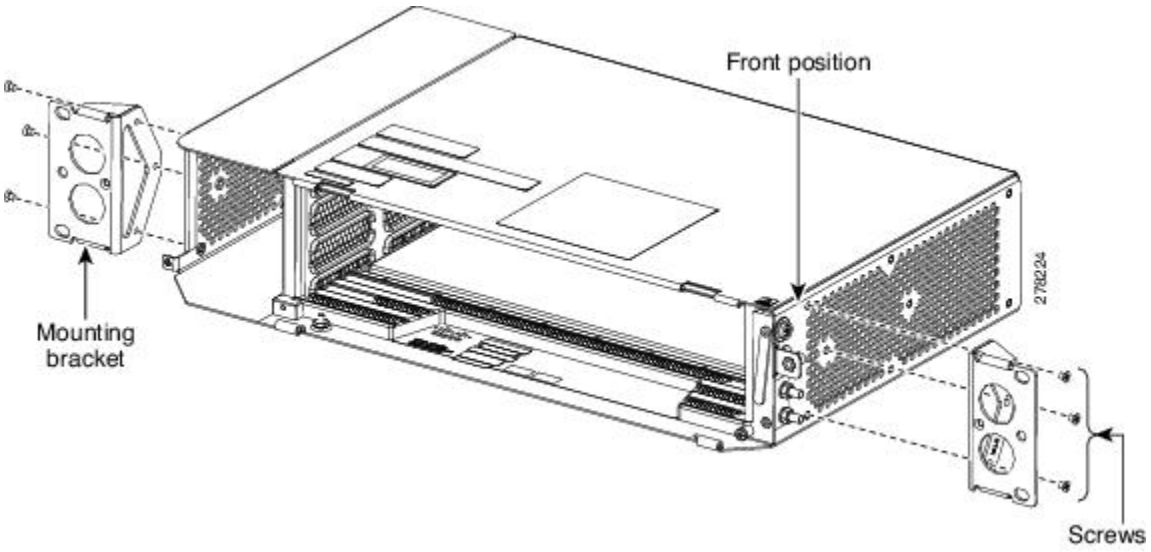
Step 1 Place the mounting bracket flush against the shelf as shown in the figure below.

Step 2 Align the mounting bracket screw holes against the shelf screw holes.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 4 Repeat steps 1 through 3 for the mounting bracket on the opposite side.

Figure 4: Mounting the Brackets on the NCS 2002 Shelf for ETSI Rack Configuration



Step 5 Return to your originating procedure (NTP).

DLP-L39 Mounting the Air Deflectors (Front-to-Front) on the NCS 2002 Shelf for ETSI Rack Configuration

Purpose	This task mounts the air deflectors (front-to-front) on the NCS 2002 shelf for ETSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Note The air deflectors can be installed only in the front position of the chassis.

Procedure

Step 1 Place the right front air deflector flush against the right side of the chassis as shown in Diagram 1 of the figure below.

Step 2 Align the screw holes on the right front air deflector with the screw holes on right side of the chassis.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 1 of the figure below.

Step 4 Place the left front air deflector flush against the chassis as shown in Diagram 1 of the figure below.

Note
If the 100G-LC-C, 10x10G-LC, or CFP-LC cards are to be installed in the NCS 2002 shelf, do not mount the left front deflector (exhaust air deflector). Use the standard brackets directly to mount the NCS 2002s shelf.

Step 5 Align the screw holes on the left back air deflector with the screw holes on the chassis.

Step 6 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 1 of the figure below.

Step 7 Place the air deflector covers on the rear ends of the chassis as shown in Diagram 2 of the figure below.

Step 8 Align the screw holes on the air deflector covers with the screw holes on the chassis.

Step 9 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 10 Place the mounting bracket flush in the front position (see Diagram 3 of the figure below) against the right side of the chassis.

Step 11 Align the screw holes on the mounting bracket with the screw holes on the right side of the chassis.

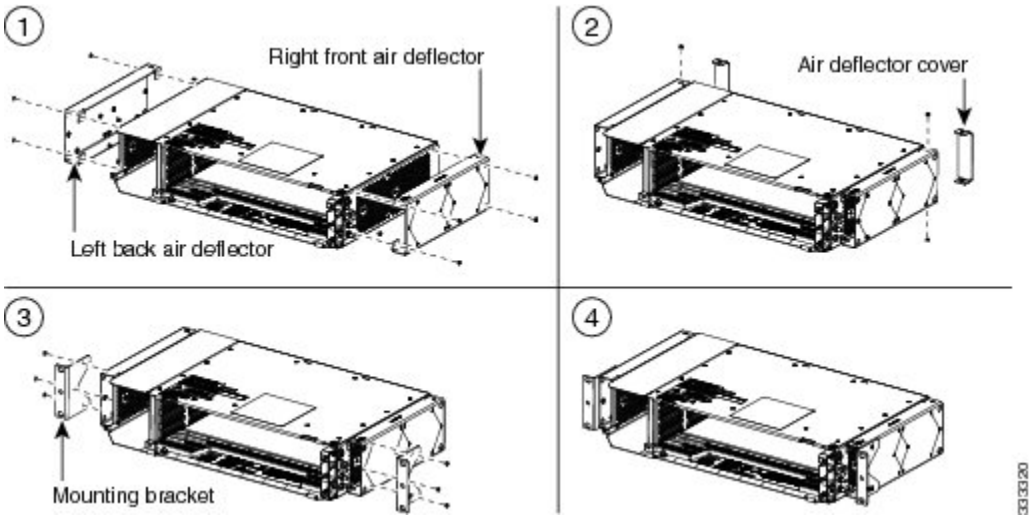
Step 12 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 13 Place the other mounting bracket flush in the front position (see Diagram 3 of the figure below) against the left side of the chassis.

Step 14 Align the screw holes on the mounting bracket with the screw holes on the left side of the chassis.

Step 15 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Figure 5: Mounting the Air Deflectors (Front-to-Front) on the NCS 2002 Shelf for ETSI Rack Configuration



Step 16 Return to your originating procedure (NTP).

DLP-L40 Mounting the Bracket with Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ETSI Rack Configuration

Purpose	This task installs the bracket with air deflectors (front-to-back) on the NCS 2002 shelf for ETSI rack configuration.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Note The air deflectors can be installed only in the front position of the chassis.

Procedure

Step 1 Place the right front air deflector flush against the right side of the chassis as shown in Diagram 1 of the following figure.

Step 2 Align the screw holes on the right front air deflector with the screw holes on right side of the chassis.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 2 of the following figure.

Step 4 Place the left back air deflector flush against the chassis as shown in Diagram 1 of the following figure.

Note
If the 100G-LC-C, 10x10G-LC, or CFP-LC cards are to be installed in the NCS 2002 shelf, do not mount the left back deflector (exhaust air deflector). Use the standard brackets directly to mount the NCS 2002 shelf.

Step 5 Align the screw holes on the left back air deflector with the screw holes on the chassis.

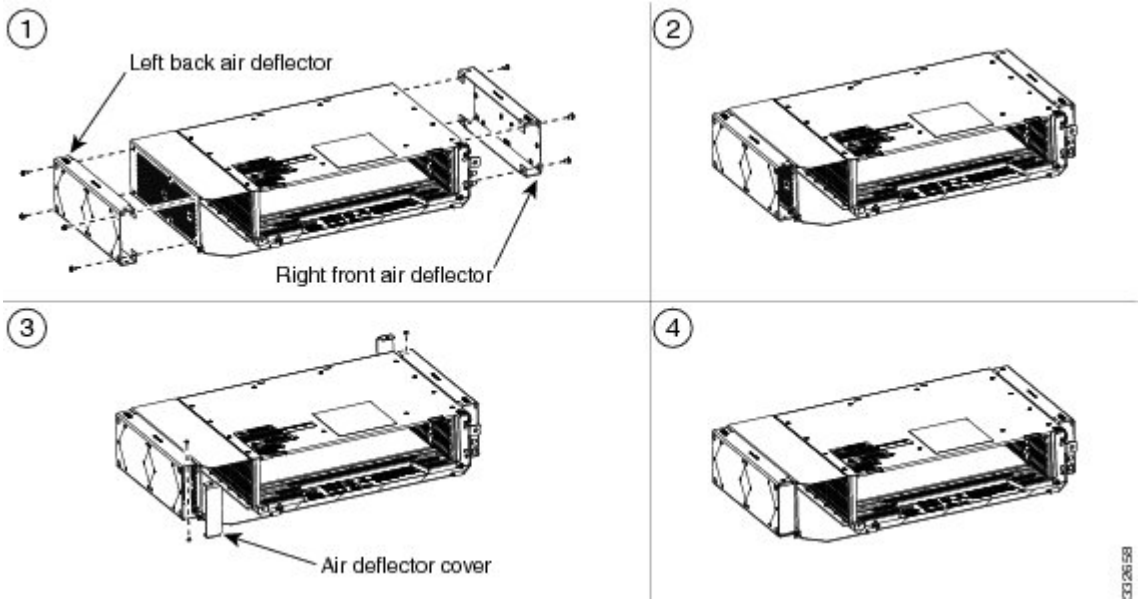
Step 6 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 2 of the following figure.

Step 7 Place the air deflector covers on the front and rear ends of the chassis as shown in Diagram 3 of the following figure.

Step 8 Align the screw holes on the air deflector covers with the screw holes on the chassis.

Step 9 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 4 of the following figure.

Figure 6: Mounting the Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ETSI Rack Configuration



Step 10 Place the mounting bracket flush in the front position (see Diagram 1 of the following figure) or in the middle position (see Diagram 3 of the following figure) against the right side of the chassis.

Step 11 Align the screw holes on the 23-inch mounting bracket with the screw holes on the right side of the chassis.

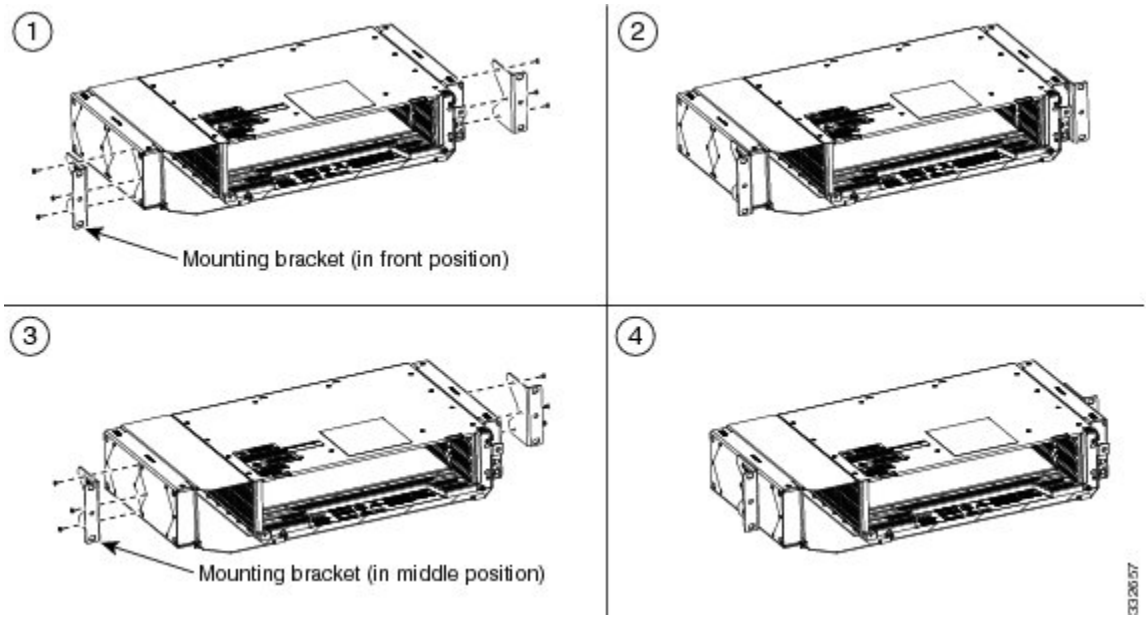
Step 12 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 13 Place the mounting bracket flush in the front position (see Diagram 1 of the following figure) or in the middle position (see Diagram 3 of the following figure) against the left side of the chassis.

Step 14 Align the screw holes on the 23-inch mounting bracket with the screw holes on the left side of the chassis.

Step 15 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Figure 7: Mounting the Brackets with Air Deflectors (Front-to-Back) on the NCS 2002 Shelf for ETSI Rack Configuration



Step 16 Return to your originating procedure (NTP).

DLP-L41 Mounting the Bracket with Air Deflectors (Front-to-Top) on the NCS 2002 Shelf for ETSI Rack Configuration

Purpose	This task installs the bracket with air deflectors (front-to-top configuration) on the NCS 2002 shelf.
Tools/Equipment	• #2 Phillips Dynamometric screwdriver • Medium slot-head screwdriver • Small slot-head screwdriver
Prerequisite Procedures	NTP-L41 Unpacking and Inspecting the Shelf.
Required/As Needed	As needed
Onsite/Remote	Onsite
Security Level	None

Caution Use only the fastening hardware provided with the NCS 2002 to prevent loosening, deterioration, and electromechanical corrosion of the hardware and joined material.

Note The air deflectors can be installed only in the front position of the chassis.

Procedure

Step 1 Place the right front air deflector flush against the right side of the chassis (see Diagram 1 of the following figure).

Step 2 Align the screw holes on the right front air deflector with the screw holes on right side of the chassis.

Step 3 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 4 Place the air deflector cover on the rear end of the chassis.

Step 5 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 2 of the following figure).

Step 6 Place the mounting bracket flush against the left side of the chassis (see Diagram 2 of the following figure).

Step 7 Align the screw holes on the mounting bracket with the screw holes on the left side of the chassis.

Step 8 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

Step 9 Place the mounting bracket flush against the right side of the chassis (see Diagram 2 of the following figure).

Step 10 Align the screw holes on the mounting bracket with the screw holes on the left side of the chassis.

Step 11 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m).

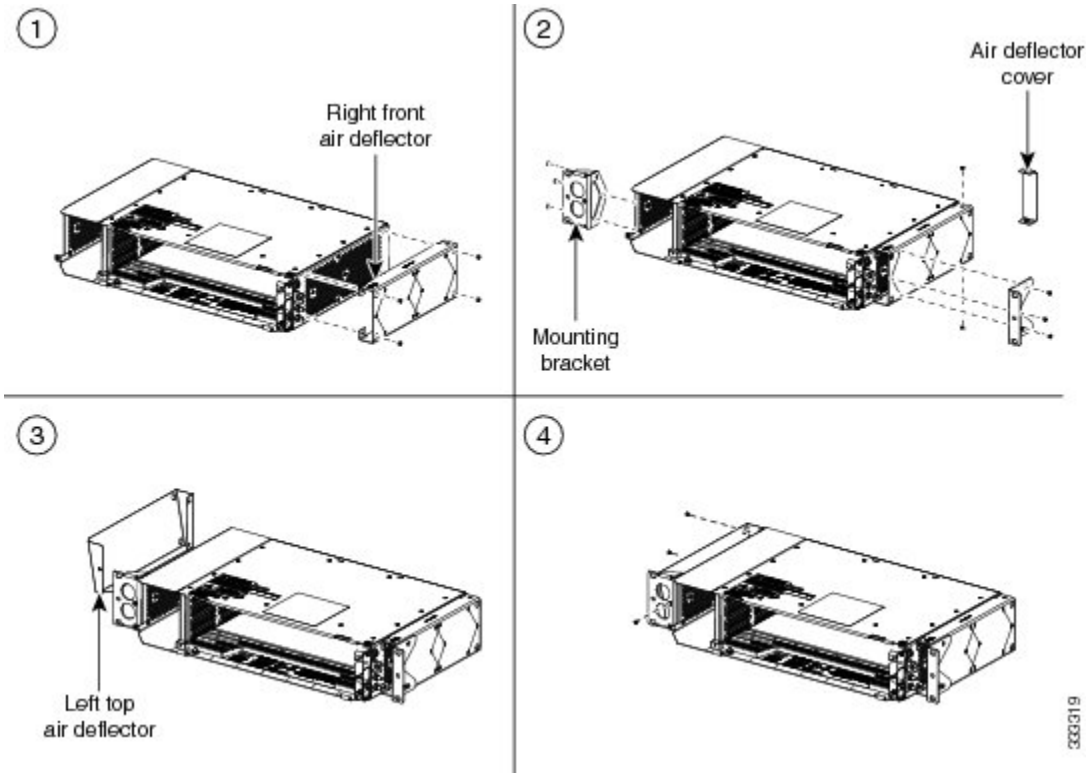
Step 12 Place the left top air deflector flush against the left side of the chassis as shown in Diagram 3 of the following figure.

Note
If the 100G-LC-C, 10x10G-LC, or CFP-LC cards are to be installed in the NCS 2002 shelf, do not mount the left top deflector (exhaust air deflector). Use the standard brackets directly to mount the NCS 2002 shelf.

Step 13 Align the screw holes with the screw holes of the mounting bracket and the chassis.

Step 14 Insert the screws and tighten them to a torque value of 11.5 in-lb (1.3 N-m). See Diagram 4 of the following figure.

Figure 8: Mounting the Bracket with Air Deflectors (Front-to-Top) on the NCS 2002 Shelf for ETSI Rack Configuration



Step 15 Return to your originating procedure (NTP).